

**Section 176-11.0 Site Plan Review and Special Permit Design Regulations**

The goals of the Site Plan Review and Special Permit Design Regulations are to:

- Ensure projects to prioritize pedestrians, cyclists, and public transit, before the automobile;
- Establish best practices through the implementation of low-impact development (LID) techniques to create a self-sustaining site;
- Establish concepts for projects to incorporate as minimum standards that will guide a project through the permitting process while allowing for flexibility in design;
- Minimize new impervious surface and reclamation of previous development in a sensitive area while directing new development on disturbed land and reusing brownfields;
- Prioritize the use of local and regional materials, in addition to the use of reclaimed and recycled materials; and
- Reduce the heat island effect on site by incorporating canopies, shade trees, and other sustainable methods.

**11.1 General Compliance.**

Projects shall comply with all provisions of the General and Zoning Bylaws and other applicable regulations, as may be amended.

**11.1.1 Landscaping.**

The project shall comply with the landscaping standards of §§135-5.3.4 through 5.3.10, 5.3.13, and 5.1.13.9 of the Zoning Bylaw.

**11.1.2 Lighting.**

The project shall comply with the lighting standards of §§135-5.4.4 through 5.4.6 of the Zoning Bylaw.

**11.1.3 Noise.**

The project shall comply with the noise standards of §80-4 of the General Bylaws.

**11.1.4 Signs.**

The project shall comply with the signage standards of §135-5.2.8 of the Zoning Bylaw.

**11.1.5 Stormwater Management.**

The project shall comply with the stormwater management standards outlined in Chapter 114 of the General Bylaws and the rules and regulations of the Board of Health. All stormwater management facilities shall comply with the Department of Environmental Protection's Stormwater Management Regulations, 314 CMR 21.00 et seq.

**11.1.6 Trees.**

The project shall comply with the tree standards outlined in Chapter 120 of the General Bylaws.

**11.1.7 Archeological or Historic Resources.**

The proposed development shall be consistent with the applicable standards of the Historical Commission and the Massachusetts Historical Commission.

**11.1.8 All bicycle parking shall comply with §135-5.1.8 Bicycle Parking Facilities.**

**11.2 Construction Standards.**

**11.2.1 Land Disturbance.**

The site and building design shall preserve natural topography outside the development footprint to reduce unnecessary land disturbance and preserve natural drainage.

**11.2.2 Utility Trenching.**

1. Clearing for utility trenching shall be limited to the minimum area necessary to maneuver a backhoe or other construction equipment.
2. Roots shall be cut cleanly rather than pulled or ripped out during utility trenching.
3. Tunneling for utility installation shall be used wherever feasible to protect the root systems of trees.

**11.2.3 Preservation of Existing Vegetation.**

1. Priority shall be given to preserving existing stands of mature trees, trees at the site perimeter, contiguous vegetation with adjacent sites (particularly existing sites protected through conservation restrictions), and specimen trees.

2. Understory vegetation beneath the dripline of preserved trees shall be retained in an undisturbed state.
3. All vegetation to be retained shall be surrounded by temporary protective fencing or other measures during clearing and construction activities before any clearing or grading occurs and maintained until all construction work is completed and the site is cleaned up.
4. Barriers shall be large enough to encompass the essential root zone of all vegetation to be protected.
5. No construction work shall begin until tree protection fencing is in place.

**11.2.4 Location of Construction Activities.**

1. To minimize the clearing and grading on a site associated with construction activities, such as parking of construction vehicles, offices, trailers, and stockpiling of equipment and materials, such activities shall be limited to areas already planned for permanent structures. Topsoil may not be stockpiled in areas of protected trees and wetlands or their vegetated buffers.
2. Construction staging areas shall avoid locating near buildings, porous surfaces, high-priority trees, and sensitive areas.

**11.2.5 Limit of Clearing.**

1. Development envelopes for structures, driveways, wastewater disposal, lawn areas, and utility work shall be designated to limit clearing and grading.
2. The clearing of vegetation and alteration of topography is strongly discouraged. Where required, the Applicant shall be replicated in the disturbed area with native vegetation.

**11.2.6 Finished Grade.**

Finished grades in disturbed areas shall be limited to no greater than a 3:1 slope (rise over run) while preserving, matching, or blending with the natural contours and undulations of the land to the greatest extent possible. The finished grade shall be no higher than the trunk flares of trees to be retained unless tree wells are used.

**11.2.7 Phasing of Development.**

1. The extent of a site exposed at any one time through phasing of construction operations shall be limited.
2. Effective sequencing shall occur inside the boundaries of natural drainage areas.

**11.2.8 Revegetation.**

1. Proper revegetation techniques shall be employed during construction using native plant species, proper seedbed preparation, fertilizer, and mulching to protect germinating plants.
2. Proposed temporary landscaping shall include native and drought-tolerant species and prohibit invasive or non-native plants.
3. Revegetation shall occur on cleared sites in the first planting season appropriate to the selected plant species.

**11.2.9 Soil.**

1. A minimum of six inches of topsoil shall be placed on all disturbed surfaces which are proposed to be planted.
2. Soil removed from the property shall be stockpiled and reused on-site where possible. Such stockpiles shall be seeded and covered and protected with erosion controls around the pile base until such soils are needed.
3. When new fill is required to be brought onto the site, clean fill shall only be permitted. Before filling being brought onto site, the Applicant shall provide a written notarized affidavit to the Planning Board, Department of Public Works (DPW), and the Conservation Commission that includes the name of the company, the location where the fill is coming from, the type of fill, and any additional information to certify that all fill is clean.

**11.2.10 Sensitive Areas.**

Where an impervious area is located within a wetland buffer or wetland area, construction staging and all associated construction work shall be reviewed by the Conservation Commission.

#### **11.2.11 Best Management Practices (BMP) Installations.**

1. Erosion control and construction Best Management Practices (BMP) installations shall be checked before the start of construction and at the end of construction daily. Such controls, when damaged, shall be repaired within 24 hours.
2. Construction sites shall be appropriately closed at the end of each day of construction.
3. Public ways along the property's frontage and within 200 feet in both directions shall be kept clear of plant litter, construction debris, etc.

#### **11.2.12 Noise.**

Where a project is located within a residential neighborhood or directly abuts a property with residential use, the Planning Board may impose limited construction hours.

### **11.3 Access, Parking, Transportation.**

#### **11.3.1 Site Access.**

1. Pedestrian, Bicycle, and Vehicular Access.
  - a. Adequate sight lines shall be provided and maintained for pedestrians, bicyclists, and motorists at all entrance and exit locations. At a minimum, sight distances shall meet the Massachusetts Highway Department and American Association of State Highway Transportation Officials standards for safe stopping sight distances.
  - b. Access points shall not create a backup within the site or on the public way.
  - c. Access to the site from a public way shall be clearly visible and easily accessible for all modes of transportation, without visual interferences (overgrown landscaping, signage, etc.).
  - d. Curb cuts shall be limited to the minimum width for safely entering and exiting the property.
  - e. Entry to and exit from a site with frontage on more than one (1) public way shall be designed to create the most negligible impact to the surrounding transportation network.
  - f. The Applicant shall be responsible for improvements to a public way to provide for safe vehicular turning movements in or out of the site and safe pedestrian access to adjoining sidewalks, paths, walking trails, or bikeways, where necessary.
  - g. The number of vehicular access points shall be minimized to decrease disruptions in the flow of traffic in public ways.
  - h. Where vehicular access drives cross pedestrian routes or sidewalks, the pedestrian crossings shall be marked and differentiated with variations in paving materials (for example, by using stamped concrete or asphalt).
2. Service, Delivery, and Loading Access.
  - a. If separate service, delivery, or loading access is required for site operations, it shall be distinct and distinguished from other forms of site access.
  - b. Loading zones and docks shall be adequately screened to not be visible from the primary public way.
  - c. The number of service, delivery, or loading bays shall be designed to meet current demands. Where potential expansion may be necessary, the site shall be designed with reservation space rather than constructing additional impervious areas for service, delivery, or loading bays or areas that are presently not needed.

#### **11.3.2 Bicycle Parking and Ways.**

1. All projects shall provide pedestrian and bicyclist connections on the property and allow possible future connections with adjoining properties.
2. Bicycle lanes or sharrows shall be designed to decrease bicycle and vehicular conflict.
3. Bicycle racks intended for extended use by employees shall be protected from the elements and secure.
4. Bicycle racks shall be easily accessible for both long-term and short-term use.
5. If the property abuts a public bikeway, a paved access route to the bikeway shall be required.
6. Long-term bicycle racks shall be conveniently located within fifty (50) feet of the destinations that they serve.
7. Short-term bicycle racks shall be located near main entrances and be visible (where possible) from the public way.

8. Sidewalks, crosswalks, walkways, bicycle racks, or other pedestrian access shall be provided to access adjacent properties and between individual businesses within the development.
  9. Signage shall be provided to guide bicyclists through the site.
- 11.3.3 Drainage.**
1. Country drainage shall be considered along roadways, sidewalks, pathways, and other compacted services where soils permit.
  2. The use of open grid pavement or like material shall be utilized in vehicular areas with minimal use or areas that serves as overflow parking.
- 11.3.4 Internal Ways and Roadways.**
1. Internal driveways and roads shall be easily navigable and remove traffic from public streets quickly.
  2. Where possible, sites shall connect to abutting properties to allow vehicular, bicycle, and pedestrian flow outside the public roadway system.
  3. The site shall be designed to assure safe interior circulation. When possible, pedestrians, bikeways, and vehicular traffic shall be separated.
  4. Internal circulation shall be planned to accommodate existing or planned transportation demand management services, such as public transit, ride-sharing, and shuttle services.
  5. Traffic calming measures, such as crosswalks, bicycle lanes, rumble strips, and landscaped islands shall be installed to maximize pedestrian and cyclist safety.
- 11.3.5 Public Transportation.**
1. The site should be accessible for shuttles and public transportation to pull onto the property near an entrance of the main structure to promote alternative transportation options.
- 11.3.6 Sidewalks and Pathways.**
1. A walkability audit shall be conducted to assess the safety and desirability of routes. Such efforts should inform the development of the pedestrian network that prevents pedestrians from walking through landscaping or natural and sensitive areas.
  2. Sidewalks and pathways shall be designed to anticipate future connections to off-site bicycle facilities and trails.
  3. Sidewalks shall be accessible, inviting, safe, and efficiently connect public sidewalks, non-vehicular trails, building entries, parking areas, and outdoor amenity spaces.
  4. Sidewalks and pedestrian ways shall be constructed from sustainable materials, recycled rubber, permeable or porous material, and recycled materials.
- 11.3.7 Parking.**
1. General Parking.
    - a. The site shall provide no more off-street parking than the greater of the minimum number required by the Zoning Bylaw and the minimum number needed to support the reasonably intended uses.
    - b. Except where physical constraints, site configuration, or safety considerations preclude strict compliance, all off-street parking shall be accessible by driveways to the parking lots of similar adjacent uses.
    - c. Car-sharing programs and vehicle charging stations shall be prioritized and scattered throughout the parking area near locations where accessible parking is provided.
    - d. Investigating shared parking (surface and structured) opportunities with adjacent property owners shall be considered when possible.
  2. Surface Parking.
    - a. Surface parking shall be buffered from a street or public way with street trees, natural features (boulders), and landscaping.
    - b. Surface parking shall be located to the side or rear of a site or occupiable structure.
    - c. The placement of surface parking shall consider existing or potential shared parking opportunities with adjacent properties and parking agreements.
    - d. Overflow surface parking shall be designed with a porous surface or left in a natural state.
    - e. Surface parking shall be conveniently located near the entries of structures while maintaining the pedestrian safety, attractiveness, and aesthetics of the site.

- f. Canopy Solar Energy Systems shall cover surface parking to the maximum extent possible.
- 3. Structured Parking.
  - a. If visible from a public way, the ground floor of parking structures shall create visual interest and visually soften landscaping, architectural screening, and pedestrian entrances.
  - b. Pedestrian access to structured parking shall be made directly through a building, pedestrian bridge, or other pedestrian ways.
  - c. Architectural forms, screening, or materials shall blend the parking structure with the other on-site buildings.
  - d. Internal support columns shall be located outside or not part of the critical area of an off-street parking space.
  - e. The uppermost level of a parking structure is unroofed. It shall incorporate alternative energy generation (solar, wind, white roofs) or water retention (green, blue, greywater) devices.

#### **11.4 Building Planning and Design.**

##### **11.4.1 Building Placement.**

- 1. Rear setbacks shall be utilized primarily for parking, loading, and utility space necessary for building uses.
- 2. Side setbacks shall allow pedestrians, cyclists, and vehicles to pass from the public street corridor into the development site and appropriate adjacent properties that share access.
- 3. The size and height of buildings along the frontage of a public right-of-way (ROW) shall be adequately scaled to the width of the component of the street (curb-to-curb), tree belts, planting strips, and pedestrian and bike facilities.
- 4. The placement of new buildings, structures, or parking facilities shall blend with the natural landscape.
- 5. New building sites shall be directed away from the crest of hills.
- 6. Foundations shall be constructed to reflect the natural terrain.

##### **11.4.2 Building Height.**

- 1. A penthouse shall be designed to be compatible with the aesthetic and material design of the building and centered on the building where possible.
- 2. New structures and additions shall minimize the negative impacts of shadows on adjacent properties or streets.
- 3. Rooftop mechanical equipment other than solar energy systems shall be screened from public streets and abutting properties.

##### **11.4.3 Building Massing.**

- 1. Building massing shall be designed to reduce the overall perceived scale and provide simple and evocative forms that reinforce the theme of a contemporary business park and a sense of a human-scaled environment.
- 2. Buildings are encouraged to utilize architectural design, terraces, balconies, varying roof height, fenestration as a function space
- 3. New buildings shall reveal different aspects of themselves from different distances and vantage points through articulation and modulation of vertical and horizontal components.
- 4. Structures located closer to established residential areas shall consider tapering down the structure's mass to provide a more compatible character transition.
- 5. The scale of a building shall be designed to consider the overall size and context.

##### **11.4.4 Façade Treatment.**

- 1. Entrances shall be located frequently along the primary street frontage and be designed in a way that is welcoming to the general public.
- 2. Natural materials such as wood, glass, and stone are recommended to reveal variations in tone and texture as one moves closer to them.
- 3. The material choices for the façade of a building shall be physically durable, high-quality, energy-efficient, easily repaired, resist aging poorly, and natural and sustainable. Preference shall be given to locally sourced and recycled materials.

4. Where publicly-oriented ground floor commercial uses are present, retractable storefront windows and moveable facades shall be considered to allow internal uses to visually "spill out" onto the sidewalks, activating them and enhancing the pedestrian experience.
5. Windows on the ground floor facing the street shall be large and highly transparent to provide views within the buildings from the sidewalk and allow natural light to penetrate the interior space.

#### **11.4.5 Sustainable Structures.**

1. Lexington is committed to being a leader in sustainability through Town-wide efforts to achieve net-zero, carbon-neutral, and low impact design for all development to protect the health, safety, or welfare of the community and environment. The goal is to incorporate climate-sensitive and environmentally-conscious design considerations to create healthier, more productive, and more sustainable places to live and work.
2. Structures shall be designed to achieve the Town's Net Zero goals, in addition to the Commonwealth's efforts to decrease fossil fuel emissions. Projects shall be designed to show how new structures will comply with net-zero conditions for the building envelope, HVAC systems, domestic hot water, lighting, and any other strategies. Furthermore, Applicants should further transition existing structures from less efficient and fossil fuel reliant towards net-zero best practices.
3. All projects shall demonstrate to the greatest extent feasible the utilization of the Low Impact Development (LID), best management landscape design, and green site design features to reduce adverse impacts to the environment and public while aiding in the mitigation and management of stormwater, site design that manages and protects natural constraints, thermal pollution, and non-point and point source pollution.
4. Structures should be designed or retrofitted to meet the highest level of certification identified efficiency programs such as Energy Star, WaterSense, Green Seal, LEED, Green Globes, etc.
5. Structures should be oriented for maximum use of daylight, reduction in heat gain, passive ventilation, and solar energy system usage.
6. The envelopes of structures should utilize high-performance glazing and continuous insulation, along with roof space for best management practices (ex. blue roof, green roof, solar energy systems, penthouses for utilities and other mechanicals, etc.).
7. To the maximum extent possible, structures should incorporate renewable energy systems (ex. solar energy systems, geothermal energy, wind energy, etc.) to reduce dependency on fossil fuels.

#### **11.5 Landscaping.**

The site design shall focus on the restorative and natural features of the site while incorporating the health and social benefit of the user. Preference shall be given to plants and materials that are locally and then regionally sourced.

##### **11.5.1 Connectivity.**

1. Retain or establish habitat corridor connectivity through the site, along natural circulation routes, and to adjacent sites where possible.
2. Support social connections by creating gathering and seating spaces for eating, working, and recreation.

##### **11.5.2 Preservation and Conservation.**

1. Avoid locating buildings, impervious surfaces, and general development around high-priority trees and sensitive areas.
2. Design projects that encourage preserving native, historical, aesthetic, or culturally significant vegetation, especially mature trees that are healthy. Allow snags to stand where they do not pose a hazard.
3. Sites shall be designed in such a way as to avoid impacts to rare and endangered species and wildlife habitat on a site and to maintain contiguous forested areas.
4. The removal of invasive species will be required except when their removal would lead to unnecessary clearings, such as a large stand of mature trees.

##### **11.5.3 Environmental Preservation.**

1. Sites shall avoid the use of prohibited hazardous landscaping materials, including but not limited to chemically treated wood and paper, dyed and chemically treated mulches, plastic and non-woven

geotextile fabrics that contain PVC (polyvinyl chloride), synthetic burlaps, galvanized steel, mulch made from recycled rubber tires, synthetic fertilizer, synthetic pesticides and herbicides, sewage sludge, raw manure, triple superphosphate, muriate of potash, synthetically derived sulfates, calcium, and magnesium, and genetically modified seed.

2. Sites shall promote the use of material resources sourced and managed locally first, regionally second, or reuse salvaged materials. A minimum of twenty (20) percent of all materials, including plants used for landscaping and site design, shall be salvaged.
3. Sites shall include a mixture of shade trees, shades and canopies, Solar Energy Systems, etc., to reduce the impacts of heat islands.

#### **11.5.4 Plant Selection.**

1. Plant and tree selection shall consider pollutant interception, water management, habitat for pollinator species, and aesthetics while improving biodiversity, pesticide use, conservation of water, and energy reduction. For the planting of trees and shrubs, please reference the Landscape List, Table XX.
2. Gardens of all types, such as community gardens, contemplative gardens, roof gardens, courtyard gardens, vertical gardens, edible gardens, rain gardens, etc., shall promote community engagement, health and well-being, physical activity, and mental restoration.
3. Non-native and invasive plants are expressly prohibited.
4. The site design shall embrace existing views while creating new views, including streetscapes, viewsheds, etc.
5. The site design shall ensure public safety for all users
6. Use local disease and insect-resistant grass seed cultivars with a variety of approved cultivars in the mix. Avoid a monoculture grass with only one species of grass used.

#### **11.5.5 Parking Perimeter Buffers and Screening.**

1. Plantings shall not be planted or maintained to create a visual hazard for either pedestrians or drivers.
2. Provide a mix of deciduous and non-deciduous plantings of adequate height and density to visually screen surface parking lots from the public sidewalk and adjacent residential neighborhoods.

#### **11.5.6 Parking Interior Landscaping.**

1. Incorporate trees that are cultivars of native species, drought, shade, and salt-tolerant plants of varying heights and species at parking islands and edges to diminish the heat island effect.
2. Provide curb extensions where pedestrians are required to cross driveways and parking aisles.

#### **11.5.7 Natural Features and Preserved Space.**

1. Maximize the use of excavated boulders in site landscaping.
2. Preserve natural meadows and cultivars of native trees and shrubs that are in good health.
3. Strive to create an ecological "sense of place" based on the plants and rocks conspicuously identifiable as endemic to the local region.
4. Use lawn alternatives, such as "No Mow" seed mixes consisting of various species that allow site areas to be left unmowed.

#### **11.5.8 Site Layout.**

1. Create sensory landscapes that focus on beautiful views, fragrant plants, and the sound of water, colorful and texturally rich vegetation, and art.
2. Design a variety of smaller, restorative spaces located throughout a site rather than one ample space.
3. Locate landscape spaces away from noise sources and visual distractions such as traffic noise, mechanical systems, and unsightly views.
4. Mitigate unwanted noise by using earth mounds and screen unsightly views with various types of vegetation.
5. Provide a variety of seating options, including moveable seating.
6. Provide lawn spaces for outdoor physical activity and determine use areas for them in the program stage of the design process.
7. Where possible, integrate outdoor landscapes with interior public spaces with windows to establish a connection to nature.

#### **11.5.9 Tree Replacement.**

1. Where native trees that are ten (10) inches in diameter above breast height (DBH) or greater are removed, the Applicant shall replace such trees per caliper on-site, with minimum replacements being three (3) inch caliper.
2. All native trees that are eight (8) inches or greater in the caliper that is removed shall be replaced. The total number of replacement trees shall be as follows: 1 tree per caliper per inch of a deciduous tree and one (1) tree per foot of height for an evergreen tree.
3. Replacement trees shall be a minimum of three (3) inch caliper for deciduous trees and five (5) feet tall for evergreen trees.
4. If the Applicant can demonstrate that the required number of replacement trees cannot be appropriately placed on-site. In that case, the Applicant may offer the Town an equal number of trees comparable in size to the Department of Public Works to be planted at their discretion elsewhere in Lexington.

#### **11.5.10 Irrigation and Soils.**

1. Conserve water resources and minimize energy use by reducing or eliminating potable water, natural surface water, and groundwater or well withdrawals for landscape irrigation after the establishment period. Provide temporary irrigation for plants only during the establishment period. Hand watering during the establishment of new plantings is preferred.
2. Identify and protect healthy soils and vegetation by mapping soils and creating soil protection zones that prevent disturbance during construction. Use fences or other physical barriers to create boundaries and prevent intrusion.
3. Maintain healthy soil ecosystems by preventing soil compaction, chemical contamination, avoiding excessively steep slopes, and preventing the loss of organic matter and biological activity in the soil
4. Plant during the optimal planting season to minimize the use of excess water for irrigating plants.
5. Promote site design that reduces or eliminates the need for water, pesticide, and herbicide use
6. Support healthy plants, biological communities, and water storage and infiltration by restoring damaged soils, protecting healthy soils, and limiting soil disturbance during construction.
7. Synthetic fertilizers, pesticides, and herbicides are prohibited, except for starter fertilizer to establish lawn grasses and the like.

#### **11.6 Signage and Wayfinding.**

- 11.6.1** In natural areas or areas of recreation, create interpretive signage and individual plant labels to identify the genus and species of plants.
- 11.6.2** Maximize the use and placement of wayfinding signage and interpretive signage to inform and direct visitors around the site.
- 11.6.3** Provide wayfinding signage that directs users and visitors to pedestrian and transportation nodes, landscapes, buildings, historical and cultural locations, and other destinations.

#### **11.7 Lighting.**

- 11.7.1** Downward-directed, dark-sky compliant, energy-efficient lighting is required to provide a minimum lighting level for evening activities, particularly near-site and building entries, pedestrian ways, and within parking lots.
- 11.7.2** Illumination levels shall be provided at the minimum level that is required to provide the function desired.
- 11.7.3** Lighting fixtures shall be selected to contribute to the overall character of the building and site and within a consistent design theme.
- 11.7.4** Lighting fixtures shall contribute to the overall character of the building and be consistent with the overall design of the site development.
- 11.7.5** Minimize unnecessary nighttime lighting by using motion-activated controls or timers that dim or turn off exterior lights beyond regular hours of operation. Other than what is necessary for security purposes, exterior lighting shall be shut off one (1) hour after the last employee leaves.
- 11.7.6** The primary power source for exterior light fixtures shall be renewable energy sources such as solar or wind.
- 11.7.7** Top-mounted sign lighting with shields so that the light falls entirely on the sign and is positioned so that the light source (bulb) is not visible from any point of the property or the roadway.



**11.7.8** Use of 'full cut-off' or 'fully shielded' designated light fixtures to reduce glare.

**11.7.9** Internal lighting shall not cause overspill onto abutting properties, the street, or the night sky.

**11.8 Sustainable Features.**

**11.8.1** Where previous encroachment on natural resources, such as wetlands or associated buffers, habitat area, etc., has occurred, the project shall be designed to reduce the impact on the natural resource.

**11.8.2** Improve water retention quality of soil by addition of organic matter through the addition of compost.

**11.8.3** Pocket parks, plazas, terraces, and other civic gathering spaces shall incorporate light imprint techniques that address stormwater's on-site quantity and quality.

**11.8.4** Projects are encouraged to provide ample canopy trees to grow to their mature size and specify measures to ensure sufficient space for water penetration and root growth.

**11.8.5** Reduce impervious surfaces and consider opportunities for permeable pavement where applicable. Drain impervious surfaces into on-site landscape areas. Reduce stormwater collection and removal from site. Avoid creating chutes off impervious surfaces that will cause erosion in the landscape areas

**11.8.6** Rehabilitate lost or degraded stream channels, wetlands, and associated native plant communities. Protect riparian and shoreline buffers where required by law or where feasible exceed requirements.

**11.8.7** Strive to replicate natural hydrologic conditions and manage precipitation on-site by exceeding the requirements for low impact development and conservation design

**11.8.8** Use stormwater harvesting systems such as cisterns and ponds for plant irrigation, cooling towers, and steam condensate makeup water. Reduce runoff volumes to municipal combined sewer systems.

**11.8.9** When possible, developments shall incorporate natural elements such as rain gardens and vegetated retention ponds

**11.9 Utilities.**

**11.9.1** Wastewater.

There shall be the adequate capacity to meet the flow demands of the proposed use under the standards of the Department of Public Works, the Board of Health, and the Massachusetts Department of Environmental Protection.

**11.9.2** Water.

The Department of Public Works shall confirm that there is adequate water capacity to meet the flow demands of the proposed use.

**11.9.3** Other Utilities.

All electrical, cable, and telecommunications services shall be installed underground.